A Comparative Analysis of Judeo-Christian, Islamic, and Scientific Sources on the Origins of the Universe, Nature, and Humanity

An Honors Thesis (HONRS 499)

by

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Muncie, Indiana

July 1995

Expected Date of Graduation
July 22, 1995

Thesis Purpose:

This thesis provides a comparison of the origins of the universe, nature, man utilizing three sources, the Bible, the Quran, and modern scientific thought. In addition to comparing these sources, it concludes with the analysis of three common, yet contrasting, features among the sources: time (modern vs. ancient), type (scientific vs. literary), and theme (application vs. salvation).

Table of Contents

A Comparative Analysis of Judeo-Christian, Islamic, and Scientific Sources on the Origins of the Universe, Nature, and Humanity

To provide a comparative analysis of the sources on the origins of the universe, nature, and humanity within Judeo-Christian, Islamic, and scientific thought, we must first define the works and terminology involved. While working between two basic concepts, the laws of nature versus the laws of God, we will be working within three distinct sources, the Bible's Old Testament as the source of Judeo-Christian religious literature, the Quran as the source of Islamic religious literature, and current theories of scientific thought.

As for the origins of the universe, and more specifically our solar system, we are concerned with the various explanations of its creation. By creation, we are using the very basic definition, not one which denotes any religious significance, i.e., the Creation by God. As it is defined, creation is the act of creating or the fact of being created. Here, obviously our concern if for the latter part of the definition, the fact of being created.

In terms of the origins of nature and humanity, we are seeking to compare the mechanisms by which plants, animals, and man came into existence, according to our three sources. Evolution, a fairly new and scientific term, may have several meanings. From a biological perspective, it can mean 1) the theory that all forms of life originated by descent, with gradual or abrupt modifications, from preexisting forms which themselves trace backward in a continuing series to the most rudimentary organisms; or 2) the series of changes by which a given type of organism has acquired the

♂ *The Modern Legacy: Scientific Thought* ♀

Prior to the seventeenth century, the discipline of science as we know and understand it today did not truly exist. Before the birth of science, explaining the constitution of the universe was accomplished first through myth, then through philosophical means, and then through a composite of both theological and philosophical principles and standards.

Historical Framework

Female figurines dating from approximately 27,000 to 20,000 year ago are largely associated with the Gravettian culture complex and most likely represent the earth-mother or fertility goddess (Klein 381). Also, excavations of burial sites from the Upper Paleolithic have uncovered evidence of *grave goods.* This practice of including useful tools in the grave generally implies a belief in an afterlife of some sort (Klein 383).

The concept of a grand design for the universe can be seen within early Greek philosophy. Anaxagoras of Clazomenae (500-428 BC) felt that the universe had been initially influenced by the cosmic *Mind* but then left to its own accord. This concept will surface again much later, during the nineteenth century, in the form of the Deist movement (Corey 12).

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Table of Contents

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physiological and structural characteristics differentiating it from other types. In terms of this thesis, it will become important to utilize both definitions so the first definition will hereafter be referred to as *Evolution* while the second will be always be referenced as *evolution*.

In terms of time, we will use the terms BCE and CE rather than BC and AD because of their religious significance. BCE refers to a time that is *Before the Common Era* and corresponds to the more commonly know BC timeframe. CE represents the *Common Era* and corresponds to the more commonly know timeframe of AD.

Putting aside any contest between the Laws of Nature and the Laws of God, we may summarize information in the chart below. It compares the basic beliefs of each source with the various origins to be discussed within this thesis, within both historical and comparative perspectives. The use of the term *created* in the Bible and the Quran is taken to mean that creation was a divine act of God while scientifically, we are implying that the universe has not been perpetual but that it had a definite starting point.

	Universe	Nature	Humanity
Bible	created	created	created
Quran	created	evolved	created
Science	created	Evolved	Evolved

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even realized that matter could not set itself into motion so he concluded that the universe must have had something to start it into motion. Both philosophers also saw the complexity of physical human design as a sign of cosmic intervention (Corey 12).

The most sustaining and integrated concepts of universal arrangement prior to the Renaissance were formulated by the greatest of Greek philosophers, Aristotle (384-322 BC). Much like Socrates and Plato, he saw the evidence of intentional design in the observable complex structure and function of all living forms (Corey 12). Aristotle maintained that an object must be evaluated based on its final purpose and not just its components (Corey 13).

By the time of the Middle Ages, the view of the universe was a synthesis of Aristotelian cosmology and Christian theology, due primarily to the work of Saint Thomas Aquinas (1225-1274). This model of the Middle Ages identified man as the central and distinctive element in terms of both location and importance with the divine being more perfect, comprehensive, and separated both geographically and metaphysically. The fact that this paradigm was readily visualized made it virtually effortless to accept (Barbour 18).

The Middle Ages extended up until approximately the sixteenth century and perpetuated a legacy of Medieval science which was of a deductive rather than inductive nature. This dominance of deductive logic was very closely related to the classical thought that knowledge was the contemplation of the perfect rather than the observation of the imperfect in the changing world (Barbour 18). Explanations during the Middle Ages were sought based on both the essence of an object and the purpose it

fulfilled. Aristotle expressed motion in terms of an object's innate disposition to return to its original resting place with the motion, or purpose, being more important than the process (Barbour 16).

Scholastic thought was an amalgamation of reason and revelation, a synthesis of Greek philosophy and biblical faith (Barbour 19). Therefore, knowledge of God was based on both natural and revealed elements. Since both elements are from God, they should not be in discord but rather should be consistent with each other (Barbour 20). Especially among Catholics, the "levels of truth" doctrine allowed flexibility to interpret which possessed an allegorical or poetical meaning (Barbour 21).

Therefore, the essence of Medieval thought could readily be characterized as realistic and static. It was realistic in the sense that the world was real because it was perceived, experienced, and understood. It was static because it saw all existing forms of nature as being in their original form, a concept which was not directly challenged until Charles Darwin published his work (Barbour 19).

The birth and growth of modern science during the seventeenth century is marked by two extremely important publications: Galileo Galilei's (1564-1642) *Dialogues* in 1632 and Isaac Newton's (1642-1727) *Principia* in 1687 (Barbour 15). The work of these two men, as well as others, literally transformed the course of science and at the same time fostered a host of dilemmas between the coexistence of scientific and religious dogma.

Known as the Father of Modern Science, Galileo changed the track of science by utilizing the concepts of mathematical reasoning and experimental observation (Barbour

23). Nicholas Copernicus (1473-1543) and Johannes Kepler (1571-1630) aided in the struggle by promoting a view of the universe as a mathematical structure with significant relationships that were quantitative rather than qualitative (Barbour 24). Galileo did not ask *why* an object fell but rather *how* it fell (Barbour 26).

Controversy was imminent since Galileo's ideas seemed in direct challenge to the authority of Aristotle and the Bible. Interestingly enough, Galileo was a devout Catholic and found no such conflict between his faith and the facts he had uncovered (Barbour 29). To quote him, "For the Bible is not chained in every expression to conditions as strict as those which govern all physical effects; nor is God any less excellently revealed in Nature's actions than in the sacred statements of the Bible" (Barbour 30).

According to the Copernican Theory, man was not the center of the universe and this thought directly threatened Aristotelian and scriptural consensus on man's central location and superior status in the hierarchy of creation. The positive aspect of this helio-centric theory was that it resolved countless mathematical problems in respect to the functioning of the solar system (Barbour 33).

As the Church struggled to maintain its religious perspective in light of what seemed to be intensely contradictory scientific information, it made a laughable compromise. It allowed the use of the Copernican Theory for calculation purposes but would not allow it to be defended in terms of a true representation of reality (Barbour 33). Galileo had difficulty disguising his defense of the Copernican Theory in his works and was put on trail in 1633. Condemned, formed to recant his theories, and

sequestered for the remainder of his life, Galileo paid a high price for the establishment of modern science. As a modern postscript, Galileo has only recently been officially vindicated by the authority of the Roman Catholic Church.

Just before the close of the seventeenth century, Issac Newton's work, especially his invention of calculus, served to complete the alliance between mathematics and experimentation so successfully innovated by Galileo (Barbour 33). Newton's laws of gravity and motion applied to all objects, maintaining the single, harmonious order of the Middle Ages, but now it was a structure of forces and masses rather than a hierarchy of purposes (Barbour 35).

In the latter part of the nineteenth century, the advent of *Darwinism,* a belief in the evolutionary concepts assembled by Charles Darwin (1809-1882), opened the arena for a serious battle between Biblical Creationism and Evolutionary Theory that rages still today (Corey 1). In 1859, Darwin published *The Origin of Species* which essentially stated that all of the complexity humanity had traditionally ascribed to a higher power had *evolved* without assistance, due only to nature (Corey 23).

Darwin's theory advanced that the basic act of survival would have been substantial enough to cause our present level of diversity. Many scientists found natural selection's ability to create as well as eliminate species from the chain of life just what they needed to remove any thoughts of divine theology from science. Asa Gray (1810-1888), a professor of botany at Harvard, found value in Darwin's work yet saw no need to remove divine inspiration from the equation, "it is just as noble a conception of the

Deity to believe that he created a few original forms capable of self-development into other and needful forms" (Corey 24).

In a similar vein, beliefs of the philosopher, David Hume had been summed up by Erasmus Darwin (1731-1802), Charles Darwin's grandfather. Erasmus wrote that Hume "concludes that the world itself might have been generated, rather than created; that is, it might have been gradually produced from very small beginnings increasing by the activity of its inherent principles, rather than by a sudden evolution of the whole by the Almighty fiat--What a magnificent idea of the infinite power to cause the causes of effects, rather than to cause the effects themselves" (Corey 25).

In summarizing modern scientific thought in regards to science and religion, we can state that since virtually all of the present order can be defined in naturalistic terms, the need to have God as an explanatory factor has inevitable dissipated (Corey 1).

Contemporary Theories

As regards the creation of the universe, the *Big Bang* theory is the current standard. It assumes that at one point in time, the building blocks of what would eventually become our universe were densely packed and confined. This theory assumes that due to forces acting in this dense environment, reactions began to occur which were catalytic to a violent explosion, thus the Big Bang which started our universe into motion some 15 billion years ago. This explosion would have created an expansion which is still occurring today and would have initialized reactions among gases, particles, and matter which evolved into the universe we know today. Our own planet came into formation just 4,500 million years ago.

Scientifically, a summary of the Evolution of nature and man are described well by Gene Williams' use of a hypothetical highway. In his book, *God's Chronicler: Darwin*, Williams develops a 1000-mile hypothetical highway for the 4,500 million years of time since the formation of the earth. Milestones along the highway are noted and elaborated below (Williams 40).

❶ Milestone 222: first life emerged after 1,000 million years of consolidation and cooling of the planet's gaseous and liquid constitution; simple, single-celled organisms began process of effecting oxygen and ozone release into atmosphere

❷ Milestone 667: about 1,500 MYA, multi-celled, bi-sexual organisms developed; evolution moves a little faster towards plants and animals

❸ Milestone 867: about 600 MYA, trilobites appear, complex, multi-celled organisms

❹ Milestone 889: vertebrates start appearing in the form of fish

❺ Milestone 922: amphibians, i.e. reptiles appear

❻ Milestone 945: mammal-like reptile, Therapsida, appears

❼ Milestone 954: dinosaurs appear

❽ Milestone 973: flowering plants appear

❾ Milestone 986: in a rapid switch, dinosaurs decline and mammals begin to increase in number

With the discovery of an ancient biped, affectionately known as *Lucy*, at Milestone 999.222 Williams shifts his line from miles to feet along the 1000-mile Evolutionary highway. This puts Lucy about 4,108 feet from the present while the onset of modern humans would be about 235 feet away from the present (Williams 41).

To summarize these current scientific theories, the universe itself was created in the course of a violent interaction some 15 billion years ago. Our own planet, Earth, began the process of formation about 4,500 million years ago with the Evolutionary sequence being, at its most simplistic level, plants to animals to hominids. It is highly relevant to note that the emergence of humans in this theory of Evolution is not in any way based upon gender but rather species.

✡ *The Judeo-Christian Legacy: The Bible* ✞

"The Bible did not start out as an entity, and is not an entity today. Rather, it is a composite of many authors, languages, translations, conferences and interpretations, all of which took place over a period of centuries. Research, leading perhaps to additional interpretations, continues today. And we already have several different versions of the Bible now in use. Nevertheless, there is considerable agreement in the substance of most of these versions." (Williams 131).

Historical Framework

The Semitic word is Torah, while the Greek word is Pentateuch. Both refer, in distinctly different ways, to the first five books of the Old Testament: Genesis, Exodus, Leviticus, Numbers, and Deuteronomy. By definition, Pentateuch means being comprised of five parts while Torah means law. These first five books are part of a 39-volume collection which constitutes the Old Testament of the Bible (Bucaille 10).

During the mid-1800's, the Pentateuch was evaluated and found to have at least four main sources. From the Southern Kingdom of Judah, the Yahvist version was written in the Eighth or Ninth century BCE. The Elohist version, from the Northern Kingdom of Israel, was written somewhat later than the Yahvist version. The book of Deuteronomy dates from the Seventh or Eighth century BCE while the Sacerdotal version was established during the exile or just after, during the Sixth century BCE (Bucaille 12).

The two earliest sources, the Yahvist and Elohist, were thus named due to the difference in how they referenced God by name. *Yahweh* was used in the Yahvist version, while *Elohim* was the name of God used in the Elohist version. Since Genesis and Exodus can generally be credited as being a combination of several sources, especially the Yahvist and Elohist, the amount of repetition, overlapping, and inconsistency found within these books in not surprising. An amalgamation of the four sources, whose creation spans three centuries, was initially put together in the Fifth century BCE to form the Pentateuch or Torah (Armstrong 11).

The books of the Old Testament may be grouped into four categories: Pentateuch, Historic, Poetic, and Prophetic. The historical books are twelve in number and range from the Thirteenth century to the Sixth century BCE, the period from when the Jews entered the promised land until their deportation to Babylon. The five poetic books are a collection of songs, poems, and prayers, collected between the Sixth and Second centuries BCE. The prophetic books, of which there are seventeen, were written between the Eighth and Second centuries BCE.

Aside from several early copies, the Septuagint, Samaritan Pentateuch, Syriac, Vulgate, and Masoretic texts are the best known and most commonly used ancient texts. The Septuagint is a Greek translation of the Old Testament done in Alexandria around 250 BCE. The Samaritan Pentateuch is a copy of a Hebrew text into Samaritan characters. The Syriac, which dates from the First or Second century CE, is a translation of parts of the Old Testament into the common language of Syria. The Vulgate Bible is a Latin translation made by Jerome at Bethlehem around 400 CE and was the standard for over 1000 years. The Masoretic text was created in Hebrew by Jewish scholars between 500 and 950 CE and added vowel points to the consonantal Hebrew text (Bible 1506).

In terms of translation, during the Middle Ages there was very little translation work going on. The standard Bible was the Vulgate which was in Latin and basically inaccessible to the common people. Between the Fourteenth and Nineteen centuries, there were ten versions of the Bible produced which were based mainly on the Vulgate Bible but also Greek texts as well as the English translations of others. Since 1900, there have been eleven translations or revisions produced. Here we see a revision of many early editions of the Bible through the review and analysis of the ancient texts, and several include the Apocrypha, a collection of texts produced between the Old and New Testaments which are not canonized. The main issues since the 1900's has been to preserve and improve (Bible 1506).

Thus, from a historical point of view, the Old Testament of the Bible around the Second and First centuries BCE was a merger of Jewish legal, historical, poetical,

and prophetical literature. Its components were composed and revised from an originally oral tradition over at least eleven centuries by countless sources, divine inspiration aside. Today, the Old Testament exists in a variety of different versions and interpretations based on various translations. The New Testament of the Bible holds little significance in the course of discussing the outline of origins, except that it does make numerous references to God as the Creator.

Biblical Material

From the original Greek, *Genesis* literally means the act or mode of originating, creation. The events ascribed to the two slightly different Judeo-Christian versions of creation are both contained in the book of Genesis. As previously mentioned, the use of multiple sources, here the Yahvist and Sacerdotal texts, probably accounts for the difference between the two versions. Chapter one was based on the Yahvist version while chapter two was based on the Sacerdotal version. Chapter one of Genesis describes the six days of the creation which include the creation of the universe, nature, and humanity.

- On the *first day*, God created the heavens and the earth with the earth void in darkness and the Spirit of God moving the face of the waters. God commanded there be light and thus light and darkness were separated.
- On the *second day* of creation, God created a firmament in the midst of the waters, to separate the waters, and he called it Heaven.
- The *third day* of creation involves the waters under the heavens being gathered into one place, and thus dry land appeared. Then we also see

the appearance of vegetation, plants yielding seeds, and fruit trees with seeds.

- On the *fourth day* God created lights in the firmament to separate day from night, for signs, seasons, days, and years as well as to give light upon the earth. God also created two lights, a greater light to rule the day and a lesser light for the firmament.
- The water brought forth creatures on the *fifth day* of creation and birds flew above the earth. Here too, God created sea monsters and every living thing that moved.
- On the *sixth day* God created cattle, creeping things, and beasts of the earth. He also created man and women in his own image with dominion over all living creatures.

In Chapter two of Genesis, verses 1 through 3, day seven of the creation specified in chapter one is described as a blessed day of rest, a sacred day. The remainder of verses in chapter two of Genesis, are the second version of creation and appear without any specific timeframe attached, in terms of days. According to this chapter, God accomplished creation in the following sequence:

- created the earth and heavens
- streams came up from the earth and watered the surface
- created man, Adam, from the dust of the ground
- planted a garden, Eden, with all types of trees and plants
- created the animal kingdom, which Adam named
- created woman from one of Adam's ribs

Here in the chapter two version of Genesis, we see the creation of the universe, nature, man, and woman.

Other references to the Creator of the universe and humanity can be seen throughout the Bible. Genesis, chapter five, verses one and two state "...When God created man, he made him in the likeness of God. He created them male and female and blessed them. And when they were created, he called them 'man'" Psalm 148 is a beautiful example which calls for worship to God as the Creator of all things, "Let them praise the name of the Lord, for he commanded and they were created." The forty-second chapter of Isaiah, verse five says, "This is what God the Lord says--he who created the heavens and stretched them out, who spread out the earth and all that comes out of it, who gives breath to his people, and life to those who walk on it" From the New Testament, the book of I Corinthians, chapter eleven, verses eleven and twelve discuss man and women, "In the Lord, however, woman is not independent of man, nor is man independent of woman. For as woman comes from man, so also man is born of woman. But everything comes from God."

Christian Perspective

Interestingly enough, in the midst of Creation versus Evolution, the Catholic Church has completed its own research. In a book entitled *Evolution And Creation, A Catholic Understanding*, three main points are set forth (Williams 149):

- That God created the universe we know is basic Catholic doctrine. How he did it is not revealed at the level that is of interest to science.
- The Bible contains no error in what the sacred writer intended to teach. But he presents his message in popular language and stories which reflect the views of the people of the time. God did not correct their views of nature.

- The Church is entrusted with revealed doctrine on the one hand, and on the other hand respects the autonomy of natural knowledge. Faith and science often touch the same subject, such as the origin of things; but since the source of truth is one, science and faith cannot conflict when properly understood.

This concept of Theistic Evolution is common among many Christians today who desire to take a middle-of-the-road stance between the theories of Creation and Evolution. Pope John Paul II said a speech in 1981, "Sacred Scripture wishes simply to declare that the world was created by God, and in order to teach this truth it expresses itself in terms of the cosmology in use at the time of the writer...Any other teaching about the origin and make-up of the universe is alien to the intentions of the Bible, which does not wish to teach how heaven was made but how one goes to heaven" (Williams 151)

Ironically, the pope's 1981 statement is very similar to one made by Galileo, whom the Catholic Church persecuted for his scientific beliefs. In 1986, the pope restated these views more pointedly by saying, "Indeed, the theory of natural evolution, understood in a sense that does not exclude divine causality, is not in principle opposed to the truth of creation of the visible world, as presented in the Book of Genesis" (Williams 152).

Certainly, men of the Church during the Middle Ages thought that the earth was flat and at the center of the universe. They did not, however, go around teaching these commonly held beliefs because it was not their mission to do so (Williams 152).

Basically, it is not the Church's responsibility to teach its parishioners about science but rather supply them with the tools to acquire and apply genuine faith in their lives.

The Islamic Legacy: The Quran

In 610 CE, Muhammad ibn (son of) Abdallah was vacationing on the Mountain of Hira during the month of Ramadan. According to Islamic tradition, he was visited by the Angel Gabriel and gifted with the first of many, many revelations from God. Known as the *Night of Glory*, thus begins the history of Islam and the Quran.

Historical Framework

Like the original traditions of the Jewish people, the Quran was a memorized, oral tradition. But unlike, the Jewish tradition, it was also recorded by scribes in the following of the Prophet Muhammad. The process of memorization, recitation, transcription, and verification was a continual process for twenty years. In a reactive sense, as certain issues, questions, and problems were raised, revelation was provided in order for Muhammad to address them. As revelations were revealed, Muhammad would work with his scribes to get the revelation into an exact translation and placed into the correct place among previous revelations. It is said that Muhammad would annually recite the entire Quran during the month Ramadan.

After Muhammad's death in 632 CE, the Prophet's dearest friend, Abu Bakr assumed the Caliphate. He immediately began the task of formalizing the revelation of the Quran with the help of Muhammad's main scribe, Zaid ibn Thabit. It was the

third Caliph, Uthman ibn Affan who oversaw the final collation of the Quran. He ordered a few copies sent to major Muslim regions and had the ancient pieces destroyed, leaving only the collective works. The original created by Uthman is still the source text today, with all Arabic versions of the Quran being virtually identical.

Islamic Material

In terms of origin, the Quran does not have sequential information readily available. The references to creation and astronomy are scattered throughout. But Islamic scholars have pieced together several passages and have come up with six phases in relation to the creation of the universe. In this scheme, man is created much later after the completion of these phases (Quran 1457).

- *stage one* was the throwing off of our planet from cosmic matter
- *stage two* was the cooling and condensing of the planet
- *stages three and four* were the growth of the vegetable and animal kingdoms
- *stages five and six* were the parallel growth of the starry realm and our solar system

Sura (chapter) 41, ayah (verse) 11 of the Quran starts with "Then He turned to the sky, And it had been (as) smoke: He said to it And to the earth: 'Come ye together'..." Islamic scholars generally interpret this to mean that the earth was in a state of gaseousness, an element of which is smoke, after having been formed during the act of creation.

Sura 7, ayah 54, describes how God created the heavens and earth in six stages with the sun, moon, and stars at this command. The only sura with any semblance of

a sequence is sura 79, ayah 27 through 33. These verses state that God created heaven, raising a canopy on high, and gave it order and perfection as well as darkness and light. Then the verses related an expansion of the earth, of water, pastures, and mountains.

In reference to the plant and animal kingdoms, sura 24, ayah 45 of the Quran describes how God created every animal from water and in sura 50, ayah 9 through 11, God sent rain to produce gardens and grains. In sura 15, ayah 19, it states that God produced all kinds of things in due balance. As far as man is concerned, there are several ayah in the Quran which discuss the subject. In sura 6, ayah 2, it is stated that many is made out of clay and exists for a stated term. Sura 15, ayah 26 says that man was created of clay and then God breathed life into him. A reference to man being made of water is found in sura 25, ayah 54.

Islamic Perspective

One of the main attractors of Islam to non-Muslims is the Quran's logical, and seemingly scientific statements, made over fourteen hundred years ago. Aside from the creation of man from clay, it is difficult to invalidate the statements about the universe and nature in the Quran based on current scientific theories.

Not unlike Christianity, there are Muslims who are bound so strongly to their faith in God through Islam that science is irrelevant to them, maybe even discounted. On the other hand, there are those who seek out the reason and logic within Islam through the Quran to use it as a foundation for their faith. An obvious similarity between Christian and Islamic doctrines is the belief in God as the creator and motivator of all things. What science calls natural selection, from a religious point of

view, might be termed *selective intent*, thus implying God's role in the universe (Williams 21).

Comparing the Sources

Having briefly reviewed the information of the Bible, the Quran, and science, we can arrange our data into a matrix which will facilitate comparison. The matrix clearly shows that the two accounts from the Bible bear no resemblance to commonly held scientific thought but also bear little resemblance to one another. The Quranic account, however, does bear striking resemblance to the Evolutionary account, in terms of sequence.

Genesis Chapter One	Genesis Chapter Two	Quran	Evolution
heavens, earth, light	heavens, earth	universe	universe
separated firmament, Heaven	watered earth	cooling stage	cooling stage
land, vegetation	man	vegetation, animals	vegetation
sun, moon, stars	vegetation	man, woman	animals
fish, birds	animals		man, woman
land animals, man woman	woman		

Without adhering to any theory of creation or evolution, we do have the ability to analyze some of this data based solely on the current laws of nature which are

explained and observed regularly. For example, in the chapter one account of Genesis, the first day is comprised of creating the heavens, earth, and then adding some light. Well, based solely on modern observations, you cannot have light without the sun, but the sun wasn't created until day four. If the day one verse might have implied that in creating the heavens, God also created *everything* in them, such as planets, stars, etc., we would not have a problem but the day four account is specific enough to discount this possibility.

On day three of this same account, the earth appears and vegetation is present. Again, based solely on modern observations, without the cycle of the earth and sun, day four, to produce applicable conditions for plant growth, there is no possibility for vegetation to occur. As far as days five and six of the chapter one account, the concept of creating fish, birds, animals, and man, in that order, does adhere to both the Evolutionary and Quranic perspectives in terms of sequence, if not source.

As we move on to the Genesis, chapter two account of creation, there is less of a dilemma with the first phase as it does not include light, nor are heavenly bodies expressly included elsewhere in the account. Thus, we may assume here that these verses imply that God did create *everything* in the heavens at the same time. Here we see the main difference in the first phases of the Biblical accounts, light, or lack thereof.

This chapter two version of Genesis does not include light. In terms of Evolution and the Quran, this origin of the universe corresponds in terms of sequence. From the Biblical and Quranic perspectives, God was the author of this creation. From an Evolutionary standpoint, there is no concrete evidence as to the events prior to the

actual *Big Bang*. The second phase of this account concerns watering the earth to allow for fertility. Based on both the Quranic and Evolutionary perspectives, everything comes from water, thus no problem arises from the earth being covered in water.

Then from the dust of the earth, God created man, before he created the plant or animal kingdoms. As far as Evolution is concerned, hominids are the most recent result of the selective process which favors beneficial mutations of the genetic materials to evolve. Thus, based on this theory, humans are ultimately derived from water. Although one ayah of the Quran does state that man is made from water, Islamic scholars interpret this as referring to the physical composition of the human body rather than its origins. There is more cohesion with the ayah of the Quran which state that man was created from clay, which is made of earth, and the breath of life was breathed into him.

The two most significant issues contained in the chapter two Genesis account are both contrary to all of our other comparative materials. The appearance of vegetation and animals after man does not relate to the Genesis chapter one, the Quranic, or the Evolutionary accounts where plants and animals are present prior to the emergence of humanity. The creation of woman separate and out of man himself is also different from the Genesis chapter one account which creates man, male and female, on the sixth day. In the Quran, the term 'man' is used in a sense of humanity and therefore is a term of male and female. Evolution, too, implies the onset of humanity as a collective of male and female.

Interestingly enough, these two Genesis accounts of creation are frequently intermixed even though, upon evaluation, they are very different. For example, it is very common for Christians to believe that God created man and woman in his own image (chapter one) while at the same time believing that woman was created from man's rib (chapter two). Basically, what we have are two different accounts from two different sources which are too different to reconcile readily with each other, let alone any modern concepts concerning the creation of the universe, nature, or humanity.

As previously stated, the Quranic accounts of the origins of the universe, nature, and man are spread throughout the work. Overall, the concepts adhere a great deal to Evolutionary theory in terms of the creation of the universe as well as both the plant and animal kingdoms. Conflict arises in terms of humanity, Evolution verses Creation.

In terms of the Biblical accounts, the Quran obviously is similar in respect to the author of these origins, God. There is also consistency with the chapter two account of Genesis in the method of bringing man into this world via dust or clay and breathing life into him. Again, a problem here is that the chapter two account speaks specifically of bringing man into the picture versus humanity.

Thus far, in terms of creating the universe, we see that the Biblical interpretations do not correspond to the scientific data, in fact, they tend to go against commonly held modern precepts of astronomy and evolution. In the case of the Quran, the interpretations appear to correspond with modern scientific principles in terms of the universe and nature. On the subject of humanity, the most significant discrepancy is in terms of the author, nature versus God. In terms of sequence, the

Quran is the only source which compares directly to the Evolutionary theory. Too, we must consider that the Quranic source is a composite of various, non-sequential statements.

Conclusion

To those who hold faith above all else, scientific theories are just that, theories. They are not proof, just possible explanations for the mysteries of God's creations. To others, holy scripture is just a source of secular literature. Of course, it has historical and cultural significance, but should not be viewed in a sacred context. When there is no middle ground to meet upon, we wage a classic battle, one of atheism versus monotheism. When we find the middle path, we find ourselves embracing what is conventionally known as theistic evolution. This concept allows that the science we have theorized about today is correct, but the mechanisms are due to the will and actions of God.

In all of this discussion over who and what to believe, we often forget to realize that science and religion have evolved to serve two distinctly different purposes. While science has developed to explain each and every occurrence within the universe, religion has developed to show us God. So essentially, this comparison of the origins of the universe, nature, and man is interesting and provocative, yet impractical due to three readily identifiable contrasting features: time, type, and theme.

In regard to the concept of time, we are comparing information gathered as far back as the Eighth century BCE to information which has been evolving just since the late nineteenth century. This temporal gap represents some twenty-eight hundred years between the origins of Judeo-Christian belief and the origins of modern scientific belief. Thus, we are comparing modern and ancient time periods and must carefully compensate for, or at least remain cognizant of, the immense differences in technology.

As far as the type of material we are comparing, one is of a literary nature while the other is scientific. A considerable difference here is in the use of allegory, defined as a story or narrative that teaches a moral or truth by using people, animals, events, etc., as symbols of that moral or truth. The use of allegory as a literary device in the Bible and the Quran is not disputed. Also, we cannot expect these religious materials to reflect an exact and complete reckoning of the mysteries of the universe within any single piece of literature when science is not bound to any such standard.

In terms of a theme, the contrast becomes one of application of the laws and theories which govern every single aspect of this universe versus the salvation of a sole individual. Here all three features of the comparison come together and we must deal with the awareness of what we see or do not see. Science is modern, scientific, applicative, and visible. Religion, on the other hand, is ancient, literary, salvistic, and symbolic.

While I see Theistic Evolution as an adequate median between science and religion, I feel that it should not be viewed in such a linear context. Most times we find religion at one end of the spectrum, science at the other end, and we stand in the

middle. We fear that pulling toward one end of the spectrum will lead us farther from the other. What I suggest is a spherical representation where theistic evolution finds religion and science truly synthesized in the center so regardless of which way you wander, you can readily find either one.

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